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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/712,755

11/13/2003

Adrian C. Lane

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12/11/2007

OWENS CORNING
2790 COLUMBUS ROAD
GRANVILLE, OH 43023

EXAMINER

MAKI, STEVEN D

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

12/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/712,755	Applicant(s) LANE ET AL.	
	Examiner Steven D. Maki	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 15 and 26-36 is/are pending in the application.
- 4a) Of the above claim(s) 27-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 15 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

- 1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9-28-07 has been entered.
- 2) Newly submitted claims 16-25 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

This application contains claims directed to the following patentably distinct species:

species 1 (original claims 1-4) - binder slurry comprising polyvinyl acetate copolymer,

species 2 (new claims 27-30) - binder slurry comprising binder selected from group consisting of polycarboxylic acid / polyhydric alcohol and self-cross linking copolymer,

species 3 (new claims 31-36) binder slurry comprising powdered polymer resin having thermally active cross-linking agent therein.

The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the

claims encompassing the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse.

Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 27-36 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03. It is also noted that applicant states: "... Applicants elected species 1, claims 1-5, 14-15, with traverse ...". Page 5 of response filed 9-28-07.

3) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4) Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 26, it is unclear what additional limitation of the binder slurry is being claimed.

5) Applicant is advised that should claim 1 be found allowable, claim 26 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 26 has the same scope as a claim 1 because claim 26 is merely describing an inherent property of the binder slurry of claim 1.

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7) **Claims 1-4, 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martino et al (US 5,120,780) in view of Vinamul technical bulletin (date 1991).**

Martino et al, directed to a glass fiber sizing composition, discloses an aqueous composition comprising polyvinylacetate film former and an organosilane such as gamma-methacryloxypropyltriethoxy silane and 3-aminopropyltriethoxy silane. The composition may also include surfactants. Acetic acid is used to adjust the pH to 5 to 6.5. Martino et al does not recite "polyvinyl acetate / silane copolymer".

As to claims 1-4, 15 and 26, it would have been obvious to one of ordinary skill in the art to use "polyvinyl acetate / silane copolymer" as the film former in Martino et al's sizing composition for glass fibers since Vinamul technical bulletin suggests using RESYN 25-1037, which comprises vinyl acetate copolymer emulsion containing silane, as a forming size binder for glass roving since the silane group provides excellent adhesion to glass.

As to claim 1, the claimed composition reads on Martino et al's composition, which comprises polyvinylacetate film former, organosilane and water wherein "polyvinyl acetate / silane copolymer" is used as the polyvinylacetate film former. The description of "binder slurry for a continuous filament mat used in a phenolic pultrusion system" in the preamble of claim 1 relates to intended use and fails to require a composition different from that suggested by the applied prior art to Martino et al and Vinamul technical bulletin.

In claim 1, "said phenolic compatible silane and said polyvinyl acetate /silane copolymer forming a binder slurry for application to sized continuous fiber stands forming a continuous filament mat, wherein said binder slurry provides a compatible interface for phenolic resin systems" relates to intended use and fails to fails to require a composition different from that suggested by the applied prior art to Martino et al and Vinamul technical bulletin. Claim 1 fail to require a method comprising the step of applying the binder slurry to sized continuous fiber stands forming a continuous filament mat and dipping the mat in a bath of phenolic resin systems. Claim 1 reads on using

the binder slurry as a sizing agent. In other words, the composition of claims 1-4, 15 and 26 read on a size composition.

As to claim 2, Martino et al's aqueous composition comprises water.

As to claim 3, it would have been obvious to one of ordinary skill in the art to use acetic acid such that the pH is 4-6 as claimed since Martino et al suggests obtaining a desired pH of 2-7 (e.g. 5-6) for the aqueous composition comprising polyvinylacetate film former using acetic acid (col. 6 lines 30-35).

As to claim 4, see col. 6 lines 18-29 of Martin et al.

As to claim 15, it would have been obvious to provide Martino et al's composition such that it contains 0.6-4% copolymer, 0.1-0.6 % silane and 0.001-0.05 % non-ionic surfactant since Martino et al teaches using 0.2-20 % of the polyacetate film former, 0-3 % adhesion promoter and surfactant; non-ionic surfactant being taken as well known / conventional type of surfactant.

Claim 26 fails to define a composition different from that suggested by the applied prior art to Martino et al and Vinamul technical bulletin.

8) Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martino et al (US 5,120,780) in view of Vinamul technical bulletin (date 1991) as applied above and further in view of Reichel (US 3,665,027).

As to claim 4, it would have been obvious to one of ordinary skill in the art to use gamma-aminopropyl trimethoxy silane in Martino et al's composition since (1) Martino et al teaches using an adhesion promoter in the composition and (2) Reichel teaches gamma-aminopropylalkoxysilanes as being useful as an adhesion promoter.

Remarks

9) Applicant's election with traverse of species 1 in the reply filed on 9-28-07 is acknowledged. The traversal is on the ground(s) that the claims are interrelated so as to allow examination in a single application and would not pose an undue burden on the examiner. This is not found persuasive because there is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph. Furthermore, applicant has failed to submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case.

The requirement is still deemed proper and is therefore made FINAL.

Applicant's arguments filed 9-28-07 have been fully considered but they are not persuasive.

Applicant argues that the present invention is not a size composition and is not applied to glass fibers. This argument is not persuasive since the composition of claims 1-4, 15 and 26 read on a size composition.

Applicant argues that the claimed invention is a binder slurry for application to sized continuous glass strands forming a continuous filament mat. This argument is not

persuasive since claims 1-4, 15 and 26 fail to require the step of applying the binder slurry to sized continuous glass strands forming a continuous filament mat.

Applicant argues that the polyvinyl acetate/silane copolymer film former provided a more compatible interface for phenolic resin systems. This argument is not commensurate in scope with the claims and is therefore not persuasive because claims 1-4, 15 and 26 fail to require an interface.

Applicant argues that Vinamul does not teach a compatible adhesion of RESYN 1037 to a sizing composition or of forming a compatible interface with a phenolic resin. This argument is not persuasive because (1) the specification describes Vinamul 25-1037 as being an example of the claimed "polyvinyl acetate / silane copolymer" and (2) RESYN 1037 (25-1037) disclosed by Vinamul technical bulletin is the same composition as Vinamul 25-1037 disclosed by applicant.

Applicant argues that if RESYN 1037 was utilized in the size composition of Martino, it would be applied directly to the glass fibers. This argument is irrelevant because claims 1-4, 15 and 26 are directed to a binder slurry instead of a method of directly applying a binder slurry to glass fibers.

As to claim 26, applicant argues that none of the cited references teach or even suggest a phenolic pultrusion process as claimed. This argument is irrelevant because claims 1-4, 15 and 26 are directed to a binder slurry (a composition) instead of a phenolic pultrusion process.

10) No claim is allowed.

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10/712,755
Art Unit: 1791

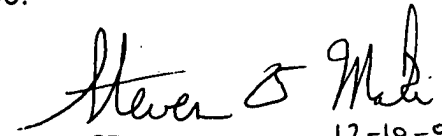
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11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
December 9, 2007


STEVEN D. MAKI
PRIMARY EXAMINER
12-10-07